

WORKMAN NYDEGGER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UTAH 84111
TELEPHONE (801) 533-9800
FAX (801) 328-1707

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Examiner Scott Christensen
United States Patent & Trademark Office

Business Phone (571) 270-1144

Telecopier Phone: (571) 270-2144

From: Brian Tucker (Reg. No. 61,550)

Comments: Draft amendments to be discussed during interview

Serial No. 10/620,803

Docket No. 13768.783.44

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JENS C. JENKINS
OFFICE DIRECT: 801-321-8937
EMAIL: jjenkins@wnlaw.com

VIA eFILE

PATENT APPLICATION
Docket No. 13768.783.44

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of)
Charles R. Reeves, et al.)
Serial No.: 10/620,803) Art Unit
Filed: June 30, 2003) 2144
Conf. No.: 8460)
For: SYSTEM AND METHOD FOR MANAGING)
ACCESS POINTS TO DISTRIBUTED SERVICES)
Examiner: Scott B. Christensen)
Customer No.: 47973)

AMENDMENT "B" AND RESPONSE
AFTER FINAL WITH RCE

VIA eFILE AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the FINAL Office Action of July 28, 2008 (paper no. 20080712), please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 9 of this paper.

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AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a computing environment, a method comprising:

requesting access points corresponding to distributed services that match specified criteria, the access points being requested from a service registry;
in response to the request, receiving a plurality of access points to a plurality of distributed services, that each of the plurality of distributed services matching the specified criteria, the access points being received from the provided by a service registry;
maintaining the plurality of access points in a cache;
receiving a request from a program to provide an access point; and
in response to the request, selecting a first access point from the cache and returning data corresponding to the first access point to the program, the first access point corresponding to a first distributed service; and
the program using the data corresponding to the first access point to access the first distributed service; and
upon receiving information from the program that thea first distributed service corresponding to the first access point has failed, selecting a second access point from the cache, the second access point corresponding to a second distributed service, and returning data corresponding to the second access point to the program, and marking the first access point corresponding to the failed distributed service such that the first access point is not subsequently selected from the cache.

2. (Currently Amended) The method of claim 1 wherein the program provides the specified criteria further comprising, receiving the specified criteria from the program, and sending a query to the service registry based on the criteria.

3. (Cancelled)

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4. (Original) The method of claim 2 wherein the service registry comprises a UDDI-based registry, and wherein sending the query to the service registry comprises sending an UDDI find request.

5. (Currently Amended) The method of claim 4 wherein the plurality of access points is provided by the service registry in a list of URLs, and wherein returning data corresponding to the access point comprises returning data comprising a URL.

6. (Original) The method of claim 1 wherein returning data corresponding to the access point comprises returning a network address of a computer system.

7. (Original) The method of claim 1 wherein returning data corresponding to the access point comprises returning an identifier that can be resolved by some mechanism to an application or a particular instance of an application.

8. (Original) The method of claim 1 wherein receiving a request from a program for an access point comprises receiving a call at a defined interface.

9. (Original) The method of claim 1 wherein selecting the access point from the cache comprises maintaining the access points in an ordering, and choosing the access point based on the ordering.

10. (Original) The method of claim 9 further comprising, basing the ordering on data received from the program.

11. (Original) The method of claim 9 further comprising, basing the ordering on quality of service data.

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12. (Original) The method of claim 9 wherein choosing the access point based on the ordering comprises choosing the access point that is first in the ordering of those access points that have not been marked as having failed.

13. (Original) The method of claim 9 wherein choosing the access point based on the ordering comprises choosing the access point that is next in the ordering.

14. (Canceled)

15. (Previously Presented) The method of claim 1 further comprising updating the service registry based on the failure data.

16. (Canceled)

17. (Previously Presented) The method of claim 1 wherein outputting failure data comprises communicating with an error handling service.

18. (Original) The method of claim 17 further comprising collecting failure information at the error handling service.

19. (Previously Presented) The method of claim 1 wherein receiving information that a distributed service has failed comprises receiving a call at a defined interface.

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20. (Previously Presented) A computer-readable storage medium having stored computer-executable instructions for performing the method of claim 1.

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21. (Currently Amended) In a computer network in which a service registry provides access points to distributed services for use by client programs, a system comprising:

a storage that maintains a plurality of access points provided by the service registry; and

a manager component coupled to the client program, the manager component configured to perform the following:

receive a request from the client program for access points corresponding to distributed services that match specified criteria, the request including the specified criteria;

in response to the request from the client program, request access points from the service registry, the access points corresponding to distributed services that match the specified criteria;

receive from the service registry a plurality of access points to a plurality of distributed services, each of the plurality of distributed services matching the specified criteria;

store the plurality of access points in the storage;

receive a request for one of the plurality of stored access points from the client program;

in response to the request, select a first access point from the storage and provide the first access point to the client program, the first access point corresponding to a first distributed service;

receive information from the client program that the first distributed service corresponding to the first access point has failed; and

in response to the information, select a second access point from the storage and provide the second access point to the client program, the second access point corresponding to a second distributed service, and mark the first access point as having failed such that the first access point is not subsequently provided in response to a request for an access point.

22. (Original) The system of claim 21 wherein the manager component comprises an instantiated object.

23. (Original) The system of claim 22 wherein the storage comprises a list maintained in storage allocated to the manager component object.

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24. (Original) The system of claim 21 wherein the client program hosts the manager component.

25. (Original) The system of claim 21 wherein the manager component is coupled to the client program via a defined interface that receives the request for the access point.

26. (Original) The system of claim 21 wherein the service registry comprises a UDDI-based registry.

27. (Canceled)

28. (Original) The system of claim 27 wherein the service registry comprises a UDDI-based registry, wherein the query comprises a UDDI find request, and wherein each access point received in response to the query comprises a URL string.

29. (Canceled)

30. (Previously Presented) The system of claim 21 wherein the selection of the first and second access points is based on an ordering scheme.

31. (Original) The system of claim 21 wherein the manager component includes a defined interface for receiving failure-related calls related to a distributed service.

32. (Original) The system of claim 31 wherein at least one failure-related call includes information that indicates the failure.

33. (Original) The system of claim 31 further comprising an error handling service, the manager component providing failure information to the error handling service including information that indicates which service failed.

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34. (Original) The system of claim 33 wherein the error handling service collects the failure information, and updates data associated with the service registry and corresponding to the service that failed.

35-39. (Canceled)

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REMARKS

The Final Office Action, mailed July 28, 2008, considered claims 1-13, 15, 17-28, 30-34, and 37-39. Claims 1-10, 17-23, 25-28, 30-33, and 37-39 were rejected under 35 U.S.C. § 103(a) as being unpatentable by Murto et al. in US Patent Application Publication US 2004/0213409 A1 in view of Nielsen in US 6,510,461. Claims 11-13, 15, 24, and 34 were rejected under 35 U.S.C. § 103(a) as being unpatentable by Murto in view as modified by Nielsen, as applied to claims 1-10, 14, 17-23, 25-33, and 35-39, and further in view of Official Notice.

By this response, claims 1, 2, 5, 20, and 21 are amended, while claims 3, 27, and 37-39 are canceled. Claims 1, 2, 4-13, 15, 17-26, 28, and 30-34 remain pending of which claims 1, 20, and 21 are independent.

The present invention is directed towards embodiments for managing access points to distributed services. The invention provides a novel way of supplying access points to multiple distributed services that meet specified criteria. For example, as illustrated by the method of claim 1, a request is made to a service registry for access points to distributed services. The request specifies criteria that the distributed services must meet. In response to this request, a plurality of access points is returned. Each access point corresponds to a different distributed service. The access points are then stored in a cache. When a client requests an access point, a first access point is selected from the cache and returned to the client who uses the access point to access a first distributed service. The client then sends notification that the first distributed service has failed. In response to this notification, *a second access point to a second distributed service* is sent to the client. Finally, the access point for the failed distributed service is marked so that it won't be selected again. Claim 20 is a computer readable medium claim that performs the same method as claim 1, while claim 21 is a system claim containing similar limitations.

Each of the independent claims was rejected as being obvious in view of the combination of Murto and Nielsen. In view of the current amendments, however, Applicant submits that these references fail to teach or suggest each limitation of the independent claims.

Murto is directed to embodiments for enabling a mobile phone to access distributed services. Although the underlying method of accessing these services in Murto is similar to the present invention, Murto fails to teach or suggest various limitations. For example, Murto does not disclose

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that in response to the failure of a first distributed service, an access point to a second distributed service is provided, as claimed. To the contrary, Murto only searches for an updated access point for the failed service. In other words, if the failure is due to the fact that the distributed service has changed its URL, the invention in Murto will request an updated URL *for the same distributed service that it had previously attempted to access*. Murto describes this as fetching new bindingTemplate information. *See ¶ 81* (If “a failure occurs, the terminal will typically use the bindingTemplate ID to fetch new bindingTemplate information from the UDDI registry, assuming that the new information is up-to-date in relation to the service.”). The bindingTemplate information is described as containing “the URL of a specific service provided by the business.” *See ¶ 62*. BindingTemplate information is specific to a service provided by a business. *See ¶¶ 59-62* (describing the data structure as a hierarchy starting with the businessEntity XML element which describes the business, and followed by one or more businessService elements which contains the bindingTemplate information). Therefore, Murto fails to teach or suggest “upon receiving information from the program that the first distributed service corresponding to the first access point has failed, selecting a second access point from the cache, the second access point corresponding to a second distributed service, and returning data corresponding to the second access point to the program, and marking the first access point corresponding to the failed distributed service such that the first access point is not subsequently selected from the cache,” as claimed in combination with the remaining limitations.

Inasmuch as Nielsen does not deal with access points to distributed services, it likewise fails to teach or suggest this limitation.

In view of the foregoing, Applicant respectfully submits that all the rejections to the independent claims are now moot and that the independent claims are now allowable over the cited art, such that any of the remaining rejections and assertions made, particularly with respect to all of the dependent claims, do not need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicant acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice, and particularly with regard to the dependent claims.^[1]

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In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at 801-533-9800.

Dated this ____ day of October, 2008.

Respectfully submitted,

RICK D. NYDEGGER
Registration No. 28,651
JENS C. JENKINS
Registration No. 44,803
Attorneys for Applicant
Customer No. 47973

JCJ:jaf
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[^H] Instead, Applicant reserves the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicant specifically requests that the Examiner provide references supporting any official notice taken. Furthermore, although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.